

**ARE CASH FLOWS FROM OPERATIONS AND
EARNINGS ABLE TO FORECAST
FUTURE CASH FLOWS? EVIDENCE FROM THAILAND**

SARANYA YOHMAD

**MASTER OF SCIENCE
(INTERNATIONAL ACCOUNTING)
UNIVERSITI UTARA MALAYSIA
JUNE 2012**

ARE CASH FLOWS FROM OPERATIONS AND EARNINGS ABLE TO
FORECAST FUTURE CASH FLOWS? EVIDENCE FROM THAILAND

By
SARANYA YOHMAD

A research project submitted to the Othman Yeop Abdullah

Graduate School of Business

Universiti Utara Malaysia,

In Fulfilment of the Requirement for the Degree of Master of Science

PERMISSION TO USE

In presenting this project paper in partial fulfillment of the requirements for a postgraduate degree from Universiti Utara Malaysia, I, hereby, give my consent to allow the Sultanah Bahiyah Library of Universiti Utara Malaysia to display this project paper as a reference. I further agree that permission for copying of this project paper in any manner, in whole or in part, for scholarly purpose may be granted by my supervisor or, in his absence by the Dean of Othman Yeop Abdullah Graduate School of Business. It is understood that any copying or publication or use of this project paper or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to University Utara Malaysia for any scholarly use which may be made of any material from my project paper.

Request for permission to copy or make other use of materials in this project paper, in whole or in part should be addressed to:

**Dean of Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman**

DISCLAIMER

I am responsible of the accuracy of the opinion, technical comment, factual report, data, figures, illustrations and photographs in the article. I bear full responsibility for the checking whether material submitted is subject to copyright or ownership right. UUM does not accept any liability for the accuracy of such comment, report and other technical and factual information and the copyright or ownership right claims.

I certify that the substance of this thesis has not already been submitted for any degree and is not currently being submitted for and other degree or qualification. I certify that any help received in preparing this thesis and all sources used have been acknowledged through this thesis.

MISS SARANYA YOHMAD

805886

JUNE 21, 2012

ABSTRACT

This study aimed to test the predictive ability of cash flows from operations and earnings as reported in the statement of cash flows and statement of comprehensive income respectively, in forecasting future cash flows based on data selection from 627 companies on Stock Exchange of Thailand for the period from 1994 to 2009. The ordinary least square (OLS) regression was used to test the hypotheses in the study.

The regression result of this study shows that cash flows from operations have a relationship with future cash flows. It also shows that earnings have the predictive ability for future cash flows.

ACKNOWLEDGMENTS

In the name of Allah, the Most Gracious and Most Merciful

My highest and most sincere appreciation goes to my beloved parents, brothers and sisters, who have always encouraged and guided me to be independent, and reached the highest peak of my aspirations. I will always be very grateful to my beloved father for providing, supporting, and advising me with great patience and attention in everything that I had done to complete not only this project paper but also my master program. Without this kind gesture, probably I would not have been satisfied with myself as I am now.

Not forgetting, my special thanks also go to staff of Sultanah Bahiyah Library, Computer Centre, for all their help, support and guidance during my study. I would like to express my high appreciation to my lecturers in the division of Accounting, College of Business, and to all my friends. Thanks again to everyone including those who I have probably forgotten to mention here.

Lastly, but not least, very big thank you to Hatyai University for giving me the opportunity and supporting my postgraduate studies at Universiti Utara Malaysia.

Table of Contents

PERMISSION TO USE.....	iii
DISCLAIMER.....	iv
ABSTRACT	v
ACKNOWLEDGEMENTS.....	vi
TABLE OF CONTENTS.....	vii
LIST OF TABLES	x
LIST OF FIGURES/CHARTS	xi
LIST OF ABBREVIATIONS	xii

CHAPTER ONE: INTRODUCTON

1.1 Background of the Study.....	1
1.2 Problem Statement	4
1.3 Research Questions	7
1.4 Research Objectives	7
1.5 Scope of the Study	8
1.6 Significance of the Study	8
1.7 Organisation of the Study	10

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction	11
2.2 Prior Research	11
2.3 The Importance of Cash Flows from Operations and Earnings	13
2.3.1 Cash Flows from Operations.....	13
2.3.2 Earnings	16
2.4 The predictive ability of cash flows from operations and earnings in forecasting future cash flows.	17
2.5 Summary	25

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction	26
3.2 Theoretical Framework	26
3.3 Hypotheses Development.....	27
3.3.1 Cash Flows From Operations.....	28
3.3.2 Earnings	29
3.4 Data Selection	30
3.5 Model Specification	32
3.6 Summary	33

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction	34
4.2 Descriptive Statistics and Correlation Analysis	34
4.2.1 Descriptive Statistics.....	34
4.2.2 Pairwise Correlation Analysis.....	36
4.3 Regression Analysis Results	37
4.4 Summary	39

CHAPTER FIVE: CONCLUSION

5.1 Introduction	40
5.2 Discussion and Conclusion	40
5.3 Limitations of the Study and Suggestion to the Future Research	44
5.3.1 Limitations of the Study.....	44
5.3.2 Suggestion to the Future Research.....	44
5.4 Summary	45

REFERENCES	46
-------------------------	-----------

LIST OF TABLES

Table 3.1 Total Number of Companies Based on Industry.....	31
Table 4.1 Descriptive Statistics for Year 1994-2009	35
Table 4.2 Pairwise Correlation Matrix between CFO and FCF, EARN and FCF and CFO and EARN	36
Table 4.3 Results from Ordinary Least Squares Regression Models of Cash Flows from Operations and Earnings	37

LIST OF FIGURES/CHARTS

Figure 3.1: Research Framework	27
--------------------------------------	----

LIST OF ABBREVIATIONS

US	United States
UK	United Kingdom
SET	Stock Exchange of Thailand
CFO	Cash Flows from Operations
EARNs	Earnings
FCF	Future Cash Flows
OLS	Ordinary Least Square
FASB	Financial Accounting Standards Board

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The most important asset in any company is cash. The availability of cash shows liquidity and efficiency in the operations of a company. In addition, cash is used as an indicator of the well-being of a company, as shown in the financial statement. It can also be used to identify a company's financial strength as the statement of cash flows is clear evidence of a company's operation. For example, the total liquid cash reported in the financial statement is indicative of a company's cash flow position. If the amount of cash in the financial statement is large, this indicates that there is high possibility of good liquidity as well. Besides that, the amount of cash as shown in the statement of cash flows indicates the net cash amount received and paid for and from a company's operations.

Cash therefore, plays a vital role in attracting investors and building confidence for future investors to invest in a company. This is because investors invariably tend to make a decision whether to invest or not, based on the financial position of a company. Almeida, Campello, & Weusbach, (2004) documented that it is important to study cash flows of a firm. They emphasised that the cash value should be positive in order to attract investors' attention.

In addition, Megan, Hategan, & Caciuc, (2009) implied that cash flows are very crucial for decision makers because it measures the actual money paid out or received by a company. The author also reported that the amount of cash

The contents of
the thesis is for
internal user
only

REFERENCES

- Al Attar, A. & Hussain, S. (2004). Corporate Data and Future Cash Flows. *Journal of Business Finance & Accounting*, 31(7-8), p. 861-903.
- Almeida, H., Campello, M. & Weusbach, M. S. (2004). The Cash Flow Sensitivity of Cash. *The Journal of Finance*, 59(4), p. 1777-1804.
- Aroonvuthipong, S. (2009). Thai Accounting Standard has been Updated 2009: Thai GAAP and IFRS. Retrieved May 13, 2010 from www.christian.ac.th
- Arthur, N., Cheng, M., & Czernekowski, R. M. J.(2007). The persistence of cash flow components into future earnings, *University of Sydney Working Paper*.
- Arthur, N., Cheng, M., & Czernekowski, R. M. J. (2010). Cash Flow disaggregation and the Prediction of Future Earnings. *Accounting and Finance*, 50(1), p. 1-30.
- Atwood, T. J., Drake, M. S., Myers, J. N. & Myers, L. A. (2011). Do earnings reported under ifrs tell us more about future earnings and cash flows? *Journal Accounting Public Policy*, 30(2), p. 103-121.
- Ball, R. & Brown, P. (1968). An empirical evaluation of accounting income numbers. *Journal of Accounting Research*, 6(2), p. 159-77.
- Ball, R., Brown, P., Finn, F.J. & Officer, R.R. (1989). Share Markets and Portfolio Theory: Readings and Australian Evidence, 2nd edn, University of Queensland Press, St. Lucia, Qld.
- Bamber, L. S. & Cheon, Y. S. (1995). Differential price and volume reactions to accounting earnings announcements. *The Accounting Review*, 70(3), p. 417-41.
- Bank of Thailand. (2009). The reporting of financials and economics in 2009, Bank of Thailand. *HousingBiz*, Reviewed May 2009, <http://www.bot.or.th/BOTWebSite/DataBank/Econcon/econreport/monthly/index_thi.asp>.
- Barth, M. E., Cram, D. P. & Nelson, K. K. (2001). Accruals and the prediction of future cash flows. *The Accounting Review*, 76(1), p. 27-58.
- Bartov, E., Goldberg, S. R. & Kim, M. (2001). the valuation relevance of earnings and cash flows: An international perspective. *Journal of International Financial Management and Accounting*, 12(2), p. 103-32.
- Beaver, W. H. (1966). Financial Ratios as Predictors of Failure. *Journal of Accounting Research (Supplement)*, p. 71-111

- Blum, M. (1974). Failing company discriminant analysis. *Journal of Accounting Research*, 12(1), p. 1-25.
- Board, J. L. G. & Day, J. F. S. (1989). The information content of cash flow figures. *Accounting and Business Research*, 20(7), p. 3-11.
- Bowen, R.D., Burgstahler, D. and Daley, L. (1986). Evidence on the relationships between earnings and various measures of cash flow. *The Accounting Review*, 61(4), p. 713-725.
- Bowen, R.D., Burgstahler, D. and Daley, L. (1987). The incremental information content of accruals versus cash flows. *The Accounting Review*, 62(4), p. 723-747.
- Boyd, T. & Cortese-Danile, T. M. (2000/2001). Using the cash flow statement to improve credit analysis. *Commercial Lending Review*, 16(1), p. 55-9.
- Brooks, J. E. (1981). An empirical investigation of the usefulness of earnings in predicting future enterprise cash flows. (PhD Dissertation, Michigan State University, 1981) (Cited Greenberg et al., 1986).
- Calabrese, J. & Rafferty, B. A. (2003). EBITDA: What your borrower is measuring and how it affects cash? *Commercial Lending Review*, 18(3), p. 41-4.
- Chang, J. (2002). Investors Sharpen Focus on Free Cash Flow. *Chemical Market Reporter*, July 22-July 29.
- Charitou, A. (2000). The impact of losses and cash flows on dividends: Evidence for Japan. *ABACUS*, 36(2), p. 198-225.
- Cheng, A., Liu, C. S. & Schaefer, T. F. (1997b). The value-relevance of SFAS No. 95 Cash Flows from Operations as Assessed by Security Market Effects. *Accounting Horizons*, 11(3), p. 1-15.
- Chotkunakitti, P. (2005). Cash flows and accrual accounting in predicting future cash flows of thai listed companies, DBA thesis, Southern Cross University, Lismore, NSW.
- Dambolena, I. G. and Shulman, J. M. (1988). A primary role for detecting bankruptcy: Watch the cash. *Financial Analysts Journal*, p. 74-78.
- Dechow, P. (1994). Accounting earnings and cash flows as measures of firm performance: The role of accounting accruals. *Journal of Accounting and Economics*, 17(July), p. 3-42.
- Dechow, P. M., Kothari, S. P. & Watts, R. L. (1998). The relation between earnings and cash flows. *Journal of Accounting & Economics, Elsevier*. 25(2), p. 133-168.

- DeFond, M. L., Hung, M. (2003). An Empirical Analysis of Analysts Cash Flow Forecasts, *Journal of Accounting and Economics*, 35(1), p. 73–100.
- Ebaid, I. E. (2011). Accruals and the prediction of future cash flows. *Management Research Review*, 34(7), p. 838-853.
- Eng, L. L., Nabar, S. & Chng, C. (2005). The predictive value of earnings, cash flows and accruals in the period surrounding the asian financial crisis: Evidence from Hong Kong, Malaysia, Singapore and Thailand. *Journal of International Financial Management and Accounting*, John Wiley & Sons. 16, p. 165-193.
- Epstein, M. J. & Pava, M. L. (1992). How useful is the statement of cash flows?. *Management Accounting*, 74(1), p. 52-5.
- Farshadfar, S., Ng, C. & Brimble, M. (2008). The Relative Ability of Earnings and Cash Flow Data in Forecasting Future Cash Flows: Some Australian evidence. *Pacific Accounting Review, Emerald*, 20, p. 254-268.
- FASB (1978). Statement of Financial Accounting Concepts, Financial Accounting Standards Board (FASB), Stamford.
- Finger, C. A. (1994). The ability of earnings to predict future earnings and cash flow. *Journal of Accounting Research*, 32(2), p. 210-23.
- Figlewicz, R. E. & Zeller, T. L. (1991). An Analysis of performance, liquidity, coverage, and capital ratios from the statement of cash flows. *Akron Business and Economic Review*, 22(1), p. 64-81.
- Foster, G. (1986). Financial Statement Analysis. *Prentice-Hall*, New Jersey.
- Gallinger, G.W. (2000). A framework for financial statement analysis part 4: Statement of cash flow. *Business Credit*, 102(5), p. 32-7.
- Givoly, D., Hayn, C. & Lehavy, R. (2009). the quality of analysts cash flow forecasts. *The accounting Review*, 84, p. 1877-1911.
- Gombola, M. J., Haskins, M. E. and Williams, D. D. (1987). Cash Flow in bankruptcy prediction. *Financial Management*, p. 55-65.
- Greenberg, R.R., Johnson, G.L. & Ramesh, K. (1986). Earnings Versus cash flows as a predictor of future cash flow measures. *Journal of Accounting Auditing and Finance*, 1(4), p. 266-77.
- Grossman, S. D. & Pearl, D. (1988). Financial analysis of the statement of cash flows. *Ohi CPA Journal*, 47(3), p. 11-4.

- Haw, I. M., & Wu W. (2001). The nature of information in accruals and cash flows in an emerging capital market: The case of China. *The International Journal of Accounting*, Elsevier. 36(4), p. 391-406.
- IASC (2000). International Accounting Standards Explained, John Wiley & Sons, New York.
- Ibarra, V. and Suez-Sales, G. M. (2011). A comparison of the international financial reporting standards (IFRS) and generally accepted accounting principles (GAAP) for small and medium-sized entities (SMEs) and compliances of some Asian countries to IFRS. *Journal of International Business Research*, 10(3), p. 35, 59.
- Ingram, R. W. & Lee, T. A. (1997). Information provided by accrual and cash-flow measures of operating activities, *Abacus*, 33(2), p. 168-85.
- Jones, S. & Widjaja, L. (1998). The decision relevance of cash-flow information: A note, *Abacus*, 34(2), p. 204-19.
- Jordan, C. E., Waldron, M. A. & Clark, S. J. (2007). An analysis of the comparative predictive abilities of operating cash flows, Earnings, and Sales. *The Journal of Applied Business Research*. 23(3), p. 53-60.
- Kim, M. and Kross, W. (2005). The Ability of Earnings to Predict Future Operating Cash Flows Has been Increasing—Not Decreasing. *Journal of Accounting Research*, John Wiley & Sons. 43, p. 753-780.
- Kremer, C. & Rizzuto, R. (2000). Three bottom lines. *Executive Excellence*, 17(9), p. 6-7.
- Largay III, J. A. and Stickney, C. P. (1980). Cash flows, ratios analysis and W. T. grant company bankruptcy. *Financial Analyst Journal*, p. 51-54.
- Lees, A. T. & Leibman, P. R. (2000). Free cash flow: Back to basics. *Oil & Gas Investor*, 20(4), p. 67-70.
- Lipe, R. (1990). The relation between stock returns and accounting earnings given alternative information. *The Accounting Review*, 65(1), p. 49-71.
- Mautz, R. D., Jr. & Angell, R. J. (2009). Reading the statement of cash flows. *Commercial lending review*, p. 15-20.
- McBeth, K. H. (1993). Forecasting operating cash flow: evidence on the comparative predictive abilities of net income and operating cash flow from actual cash flow data. *The Mid-Atlantic Journal of Business*, 29(2), p. 173-87.

- Megan, O., Hategan, C. & Caciuc, L. (2009). The cash flow statement – between true and manipulation. *Annals of the University of Petroșani, Economics*, 9(2), p. 127-136.
- Mooi, T. L. (2007). Predicting future cash flows: Does cash flow have incremental information over accrual earnings? *Malaysian Accounting Review*, UPENA and MAREF. 6, p. 63-80.
- Murdoch, B. & Krause, P. (1989). An empirical investigation of the predictive power of accrual and cash flow data in forecasting operating cash flow. *Akron Business and Economic Review*, 20(3), p. 100-13.
- Neill, J. D., Schaefer, T. F., Bahnson, P. R. & Bradbury, M. E. (1991). The usefulness of cash flow data: A review and synthesis. *Journal of Accounting Literature*, 10, p. 117-50.
- Quirin, J. J., Bryan, O. D., Wilcox, W. E. & Berry, K. T. (1999). Forecasting cash flow from operations: Additional evidence. *The Mid - Atlantic Journal of Business*, 35(2/3), p. 135-42.
- Quirin, J. J., Bryan, O. D. & Berry, K. T. (2000). Forecasting cash flow from operations: Evidence from the oil and gas industry. *Oil, Gas & Energy Quarterly*, 48(3), p.517-28.
- schaeffer, h. a. (2002). cash flow: the lifeblood of a business. *controllers update*, 200, p. 1, 3.
- Sharma, D. S. (2001). The Role of Cash Flow Information in Predicting Corporate Failure: The State of the Literature. *Managerial Finance*, 27(4), p. 3-28.
- Staubus, G. J. (1989). Cash flow accounting and liquidity: Cash flow potential and wealth. *Accounting and Business Research*, 19(74), p. 161-9.
- Udomkerdmongkol, M., Chuenchoksan, S. & Vorasa-ngasil, N., (2010). Investment in Thailand: How to unleash the new investment cycle? Bank Of Thailand symposium 2010. Monetary Policy Group, Bank of Thailand.
- Wardhani, A. K. (2008). Predicting Future Operating Cash Flows and Factors That Influence Future Operating Cash Flows. *Department of Accounting*, Islamic University of Indonesia. Bachelor.
- White, G. I., Sondhi, A. C. & Fried D. (2002). *The Analysis and Use of Financial Statements*. 3 Editions. John Wiley & Sons, Inc.
- Williamson, D. (2003). Free cash flow. *Teaching Business & Economics*, 7(1), p. 13-7.

Zhao, Y., Hobbes, G. & Wright, S. (2007). Predicting future cash flow from operations: Australian evidence. *20th Australasian Finance & Banking Conference 2007 Paper, SSRN*.

Zwaig, M. C. & Pickett, M. M. (2001). Early warning signs of a bankruptcy. *Business Credit*, 103(1), p. 65.